

DEPARTMENT OF ENVIRONMENTAL QUALITY
Environmental Assessment

Permitting and Compliance Division
Water Protection Bureau

Name of Project: Yukon Mine

Type of Project: Underground
Mining and Milling of Precious
Metals

Location of Project: Within Section 29, Township 14 North, Range 10 East

City/Town: 38 Miles Southwest of Hobson

County: Judith Basin

Description of Project:

Yukon Mining, Inc. (Yukon) has acquired a historic mining claim and adit southwest of Hobson and has begun the task of reopening the mine. Yukon intends to conduct exploration activities and operate the mine using conventional hardrock underground drifting and mining methods to recover precious metals. The proposed action is issuance of a Montana Pollutant Discharge Elimination System (MPDES) permit for a single outfall. Effluent discharged from Outfall 001 will consist of mine water from the underground adit and other run-off and mine drainage from the facility. The facility intends to operate under a Small Miners Exclusion Statement, which limits surface disturbance to less than five (5) acres. The life of mine has not been projected at this time and will be contingent on exploration results and ore body delineation activities.

Agency Action and Applicable Regulations: The proposed action is issuance of a new individual Montana Pollutant Discharge Elimination System (MPDES) permit authorizing discharge of mine dewatering wastewater and other mine drainage from disturbed areas through a single outfall, Outfall 001. The proposed MPDES permit, number MT0029891, has been drafted pursuant to the Montana Water Quality Act, Title 75, Chapter 5, Montana Code Annotated; the Federal Water Pollution Control Act ("Clean Water Act") 33 U.S.C. §1251 *et seq.*; and, Administrative Rules of Montana 17.30.501 *et seq.*, 17.30.601 *et seq.*, 17.30.701 *et seq.*, 17.30.1201 *et. seq.* and 17.30.1301 *et seq.*

Summary of Issues: *Include issues and concerns / resource conflicts identified by staff and the public.*

Affected Environment & Impacts of the Proposed Project:

Y = Impacts may occur (explain under Potential Impacts).

N = Not present or No Impact will likely occur.

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are soils present which are fragile, erosive, susceptible to compaction, or unstable? Are there unusual or unstable geologic features? Are there special reclamation considerations?	[N] No known occurrences of fragile erosive, or unstable soils or geologic features have been identified.
2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?	[N] No significant impact is anticipated. The permit limits and conditions have been developed based on applicable water quality standards and nondegradation significance criteria. Additionally, instream biological and water quality monitoring is required accompanied by installation of monitoring wells and ground water quality monitoring in the area of the project.
3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?	[N] Incidental particulate material may be produced from equipment along access roads and the active mine site; however, the majority of operations including rock crushing and physical milling will be conducted underground. Therefore no significant impacts are anticipated. The area has not been identified as a Class I airshed.
4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be significantly impacted? Are any rare plants or cover types present?	<p>[Y] The Small Miners Exclusion Statement (SMES) requires the disturbed area to remain less than 5 acres, vegetative communities may be impacted within the disturbed area. Two sensitive species have been identified as potentially occurring within the project area and the surrounding 2 mile radius area. These species include <i>Cirsium longistylum</i> "Long-styled Thistle" and <i>Goodyera repens</i> "Northern Rattlesnake-platain". The Thistle has a Global and State ranking of G3 and S3, respectively, meaning it is potentially at risk because of limited and potentially declining numbers, extent and/or habitat, even though it may be abundant in some areas.</p> <p>The Rattlesnake-plantain has a Global and State ranking of G5 and S2S3, respectively. This indicates globally the species is demonstrably secure. However, at a State level it is potentially at risk to at risk, because of very limited and potentially declining numbers, extent and/or habitat, making it vulnerable to extirpation in the State.</p>
5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?	[Y] The SMES requires the disturbed areas to remain less than 5 acres, wildlife and wildlife habitat may be impacted within those 5 acres or due to minor increases in traffic along access roads. Five wildlife, bird and fish species of concern and/or species habitat have been identified as potentially occurring within the Section 29 and a two mile radius. These species include <i>Contopus cooperi</i> "Olive-sided Flycatcher", <i>Leucosticte tephrocotis</i> "Gray-crowned Rosy-finch", <i>Lynx canadensis</i> "Canada Lynx", <i>Oncorhynchus clarkii lewisi</i> "Westslope Cutthroat Trout", and <i>Sorex nanus</i> "Dwarf Shrew". The Flycatcher has a Global ranking of G4 and a State rank of S3B. These rankings indicate that globally it is uncommon but not rare (although it may be rare in parts of its range), and usually widespread. Apparently, not vulnerable in most of its global range, but possibly cause for long-term concern. At the State level the breeding population is potentially at risk because of limited and potentially declining numbers, extent and/or habitat, even though it may be abundant in some areas.

IMPACTS ON THE PHYSICAL ENVIRONMENT

	<p>The Rosy-finch has been Globally ranked as G5 meaning it is common, widespread, and abundant (although it may be rare in parts of its range). Within the State it is ranked S2B and S5N. This means the breeding population is at risk because of very limited and potentially declining numbers, extent and/or habitat, making it vulnerable to extirpation in the State.</p> <p>The Lynx is Globally ranked G5 meaning it is common, widespread, and abundant (although it may be rare in parts of its range). The State ranking is S3 indicating it is potentially at risk because of limited and potentially declining numbers, extent and/or habitat even though it may be abundant in some areas.</p> <p>The Westslope Cutthroat it Globally ranked G4T3 meaning it is globally uncommon but not rare (although it may be rare in parts of its range), and usually widespread. Apparently not vulnerable in most of its range, but possibly cause for long-term concern. Additionally, there is an infraspecific Taxon (trinomial) whose status is potentially at risk because of limited and potentially declining numbers, extent and/or habitat, even though it may be abundant in some areas. The State status is ranked S2 meaning it is at risk because of very limited and potentially declining numbers, extent and/or habitat, making it vulnerable to extirpation in the State.</p> <p>The Dwarf Shrew is list G4, meaning Globally it us uncommon but not rare, and usually widespread. Apparently, it is not vulnerable in most of its range, but possibly cause for long-term concern. State ranking is S2S3 meaning it is potentially at risk to at risk because of very limited and potentially declining numbers, extent and/or habitat, making it vulnerabl to extirpation in the State.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[Y] No Riparian Wetland Research Program wetlands sites, Montana Department of Environmental Quality priority wetlands or National Heritage Program wetlands have been identified in the area of the project.</p> <p>The United States Bureau of Land Management (USBLM) lists the Thistle as a “Sensitive Species”, meaning the species has been proven to be imperiled in at least part of its range and documented to occur on BLM lands.</p> <p>The United States Forest Service (USFS) lists the Rattlesnake-plantain status as a Sensitive Species meaning the Regional Forester has determined there is a concern for population viability within the State, as evidenced by a significant current or predicted downward trend in populations or habitat.</p> <p>The Fly-catcher has not been assessed or ranked by the US Fish and Wildlife Service (USFWS), the USFS, or the USBLM.</p> <p>The Rosy-finch has not been assessed or ranked by the USFWS, the USFS, or the USBLM.</p> <p>The USFWS has ranked the Lynx as LT meaning “Listed</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

	<p>threatened". Listed threatened species are likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (16 U.S.C. 1532(20)). USFS ranks the Lynx as "Threatened" meaning it has been listed as LT by USFWS. USBLM lists the Lynx as "Special Status" meaning it has been proven to be imperiled in at least part of its range and documented to occur on BLM lands.</p> <p>The USFS has listed the Cutthroat as Sensitive species meaning the Regional Forester has determined there is a concern for population viability within the State, as evidenced by a significant current or predicted downward trend in populations or habitat. The USBLM has also listed the Cutthroat as Sensitive species meaning it has been proven to be imperiled in at least part of its range and documented to occur on BLM lands.</p> <p>The Shrew has not been ranked by USFWS, USFS or USBLM.</p>
7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?	[Y] Based on the sites in the area and the ground disturbance required by this undertaking this project has the potential to impact cultural properties. According to available records there have been a few previously recorded sites within Section 29. Site 24JT0074 is the historic Weatherwax Mine and Cabins. There are also two historic roads located near the project location. In addition to these sites there have been previously conducted cultural resource inventories done in the area. The State Historic Preservation Office recommends that a cultural resource inventory be conducted in order to determine whether or not sites exist and if they will be impacted.
8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?	[N] Not prominent topographic feature will not be visible from populated areas.
9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project? Will new or upgraded powerline or other energy source be needed)	[N] No uses of limited resources are expected. No other activities are known to be nearby that will affect the project, permanent, temporary or self contained generators have not been proposed at this time.
10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other activities nearby that will affect the project?	[N] There are no known activities nearby that are believed to significantly affect the project.

IMPACTS ON THE HUMAN ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?	[N] No impacts are expected
12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?	[Y] The project itself is an industrial activity. If the mine goes to production significant industrial activity may be added to the area.
13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.	[N] Significant impacts to area employment are not expected. Personnel required to operate the facility while it remains under the Small Miners Exclusion Statement is estimated to be less than 5.
14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?	[N] No significant impact are anticipated.
15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc.) be needed?	[N] No significant impacts are anticipated.
16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?	[N] No zoning or management plans are known at this time.
17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?	[N] No significant impacts are anticipated.
18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?	[N] No significant impacts are anticipated.
19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?	[N] No significant impacts are anticipated.
20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?	[N] No significant impacts are anticipated.
21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:	[N] None known.
22(a). PRIVATE PROPERTY IMPACTS: Are we regulating the use of private property under a regulatory statute adopted pursuant to the police power of the state? (Property management, grants of financial assistance, and the exercise of the power of eminent domain are not within this category.) If not, no further analysis is required.	[N] Land is owned by forest service.

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RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
22(b). PRIVATE PROPERTY IMPACTS: Is the agency proposing to deny the application or condition the approval in a way that restricts the use of the regulated person's private property? If not, no further analysis is required.	[]
22(c). PRIVATE PROPERTY IMPACTS: If the answer to 21(b) is affirmative, does the agency have legal discretion to impose or not impose the proposed restriction or discretion as to how the restriction will be imposed? If not, no further analysis is required. If so, the agency must determine if there are alternatives that would reduce, minimize or eliminate the restriction on the use of private property, and analyze such alternatives. The agency must disclose the potential costs of identified restrictions.	[]

23. Description of and Impacts of other Alternatives Considered:

A. No Action: May result in discharge of pollutants to, and likely significant degradation of, State water.

B. Approval with modification: The permit requires Yukon to formulate a Plan of Operations, design a wastewater collection treatment and discharge system, and establish and evaluate discharge and effluent treatment alternatives prior to active mining operations and or additional exploration at the facility.

24. Summary of Magnitude and Significance of Potential Impacts: Potential significant impacts to Sensitive, Listed threatened and Special Status flora and fauna and their respective habitats have been identified. Additionally, cultural and historic sites exist near the mine. The State Historic Preservation Office has recommended that a cultural resource inventory be conducted in order to determine whether or not sites exist and if they will be impacted. Issuance and compliance with the MPDES permit will mitigate potentially significant impacts to water and aquatic biological resources.

25. Cumulative Effects: None known at this time.

26. Preferred Action Alternative and Rationale: Issue permit to mitigate potential significant degradation to State water and unpermitted discharge of industrial pollutants.

Recommendation for Further Environmental Analysis:

☐ EIS ☐ More Detailed EA ☒ No Further Analysis

Rationale for Recommendation: Per the State Historic Preservation Office, the Department recommends that a cultural resource inventory be conducted in order to determine whether or not sites exist and if they will be impacted.

27. Public Involvement: This permit and EA will be posted on Departments web page at <http://www.deq.state.mt.us/ea.asp> for public comment from September 1, 2006 until October 2, 2006. Public, regulatory agencies, and stake-holders are encouraged to comment. *Identify dates of meetings, comment periods, numbers of comments, etc. And reference any attached responses to comments.*
28. Persons and agencies consulted in the preparation of this analysis: Montana Natural Resources Information System (<http://nris.state.mt.us/>), the State Historical Preservation Society, the Montana Department of Environmental Quality Air Resources Management and Environmental Management Bureaus.

EA Checklist Prepared By:

Paul Skubinna
(Name)

August 16, 2006
Date

Approved By:

(Print: name & title)

Signature

Date